WHAT IS CLAIMED IS:

1. A continuously operating horizontal stirred ball mill serving for fine and very fine grinding of a material and having a cylindrical or conical grinding chamber (50, 51) serving for receiving grinding media, a material inlet (37) arranged at the end of the grinding chamber (50, 51) and opening into the interior (3) of the grinding chamber (50, 51), a material outlet (38, 39) arranged at the other end of the grinding chamber and leading out of the interior (3), and a stirrer (1, 22) having a plurality of stirrer members (2) and coaxial with the chamber axis (60), and a separately driven separation system which is arranged upstream of the material outlet (38, 39) and which separates the grinding media from the ground material and transports them back into the interior (3) of the grinding chamber (50, 51), wherein the separation system is formed from a separation member (80, 82) which has two circular disks (5, 7) which are arranged coaxially with the chamber axis (61) and between which is arranged a plurality of conveying or blade elements (12, 86) which are symmetrically distributed around the midpoint of the disk, lead inwards away from the disk edge and, during operation of the separation apparatus, generate an opposing pressure on the mixture of material and grinding media, so that, owing to the centrifugal force and the different specific density, the grinding media are separated from the product and transported back into the interior (3).

2. The stirred ball mill as claimed in claim 1, wherein the conveying or blade elements are arc-shaped.

3. The stirred ball mill as claimed in claim 2,

wherein straight or approximately straight conveying or blade elements (86) which extend inwards from the disk edge are also provided in addition to the arc-shaped conveying or blade elements (12).

4. The stirred ball mill as claimed in claim 1, wherein the two circular disks (5, 7) are detachably or nondetachably connected to one another.

5. The stirred ball mill as claimed in claim 1 or 2, wherein a concomitantly rotating annular cage (10) which encloses a circular cavity (8) is provided between the two circular disks (5, 7).

6. The stirred ball mill as claimed in claim 3, wherein a sieve plate ring (6) is placed in the annular cage (10).

7. The stirred ball mill as claimed in claim 6, wherein a sieve scraper (65) which serves for scraping off any grinding media and ground material adhering to the sieve or for keeping said grinding media and said ground material in motion is provided on the end wall (35).